

Work Order ID 53195

October 26, 2009 11:41:44 AM



Page 1

Item ID: D3183-044

Accept



Setup Start



Revision ID: C1

Stop



Item Name: Bracket Assembly

Start Date: 10/26/09 Start Qty: 8.00



Cust Item ID:

Required Date: 11/03/09 Req'd Qty: 8.00

Customer:

Reference:

Approvals: Process Plan: [Signature] Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3183	Rev C1								

100
BAND SAW
0.00
Bandsaw
Memo
Jeaspa Bandsaw
Cut blanks: (1.500" x 2.250") 5.500" long
0.00

DI 09/11/01

8

8

110
HAAS CNC VERTICAL MACHINING #1
0.00
HAAS 1
Memo
HAAS CNC vertical machine #1
1-Machine D3183-4 as per Folio FA322 and Dwg D3183-
4 2-Deburr 3-Scribe batch number
0.00

M.A 09/11/03 DI

8

120
QC2- Inspect parts off machine FAI/FAIB
0.00
QC
Memo
Quality Control
0.00

M.A 09/11/03 DI

8

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 53195

October 26, 2009 11:41:44 AM



Page 2

Item ID: D3183-044

Accept



Setup Start



Revision ID: C1

Stop



Item Name: Bracket Assembly

Start Date: 10/26/09 Start Qty: 8.00



Cust Item ID:

Required Date: 11/03/09 Req'd Qty: 8.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 QC Quality Control	QC8- Inspect parts - second check Memo	0.00 0.00	2.8 09/11/06			8	0		
140 Small Fab Small Fab Small Fab	Small Fab Memo Assemble D3183-043 as per Dwg D3183.	0.00 0.00				E 09/11/09 (8)			
150 QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00				8			205-11-03

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 53195

October 26, 2009 11:41:45 AM



Page 3

Item ID:	D3183-044	Accept		Setup	Start	
Revision ID:	C1				Stop	
Item Name:	Bracket Assembly					
Start Date:	10/26/09	Start Qty:	8.00		Cust Item ID:	
Required Date:	11/03/09	Req'd Qty:	8.00		Customer:	
Reference:						

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	Identify as per dwg & Stock Location: <u>256A</u>	0.00							
Packaging	Memo	0.00							
Packaging									
170	QC21- Final Inspection - Work Order Release	0.00							
QC	Memo	0.00							
Quality Control									

9/11/9 80sf

09/11/09

BA 09-11-9

(8)

Picklist Print

October 26, 2009 11:41:43 AM

Page 1

Work Order ID: 53195

Parent Item: D3183-044RevC1

Parent Item Name: Bracket Assembly



Comments:

Start Date: 10/26/09



Required Date: 11/03/09

Start Qty: 8.00



Required Qty: 8.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3121-21RevE		Manufactured	No			140	Each	99.0000	16.0000			
												
Bolt												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	99	
46032	5	
50096	10	
52518	84	

D3183-045RevC1		Manufactured	No			100	Each	223.0000	16.0000			
												
Bearing Assembly												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	223	
46393	3	
51560	2	
52209	218	

M174B1.500X02.250		Purchased	No			140	f	19.4000	3.8594			
												
17-4 SS Bar 1.50 X2.250												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
MAT	19.4	
108309	0.82	
111899	18.58	

4,125 (F) DJD 09/11/09

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order: 5395
Description: Bracket		Part Number: D3183-4
Inspection Dwg: D3183	Rev: C1	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
R0.190	+/-0.030	R 0.188	✓			
R0.063	+/-0.010	R 0.063	✓			
0.188 0.182	+/-0.010	0.188	✓			
0.070	+/-0.010	0.069	✓			
0.100	+/-0.010	0.106	✓			
Ø0.201 x 0.100	+/-0.010	Ø0.199 x 0.102	✓			
0.183 0.182	+/-0.010	0.184	✓			
5.32	+/-0.030	5.327	✓			
5.036	+/-0.010	5.036	✓			
2.120	+/-0.010	2.118	✓			
1.290	+/-0.010	1.289	✓			
0.365	+/-0.010	0.369	✓			
0.218	+/-0.010	0.216	✓			
1.030	+/-0.010	1.032	✓			
1.90	+/-0.030	1.893	✓			
1.012	+/-0.010	1.009	✓			
Ø0.201 x 0.100	+/-0.010	Ø0.199 x 0.102	✓			
0.786	+/-0.010	0.784	✓			
Ø0.392	+0.002/-0.000	Ø0.393	✓			
R0.19	+/-0.030	R 0.188	✓			
3.954	+/-0.010	3.952	✓			
0.162	+/-0.010	0.160	✓			
R0.19	+/-0.030	R 0.188	✓			
R0.25	+/-0.030	R 0.250	✓			
4.26	+/-0.030	4.266	✓			
2.800 Calculated dimension	+/-0.030	2.812	✓			
0.162	+/-0.010	0.160	✓			
0.615	+/-0.010	0.613	✓			
0.435	+/-0.010	0.433	✓			
0.200	+/-0.010	0.199	✓			
0.381	+/-0.010	0.380	✓			
0.032	+/-0.010	0.031	✓			

Measured by: N.A	Audited by: BP	Prototype Approval:	N/A
Date: 09/11/03	Date: 09/11/06	Date:	N/A

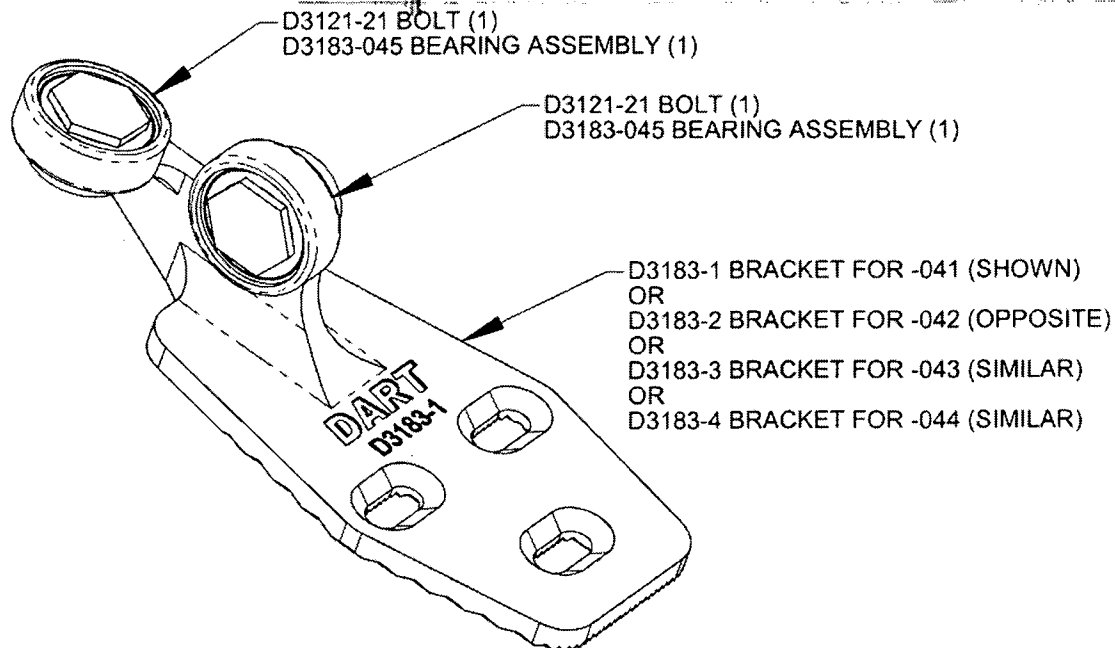
Rev	Date	Change	Revised by	Approved
A	03.11.12	New Issue P/O D3183-044	KJ/RF	
B	04.03.15	Changes as per revision C	KJ/JLM/RF	
C	04.06.15	Dimension 2.800 was 2.080; removed 1.155, 0.36 dimensions	KJ/JLM	
D	06.03.09	Dwg Rev update	KJ/JLM	
E	08.01.16	Dimensions revised	KJ/EC/DD	

u10 5395

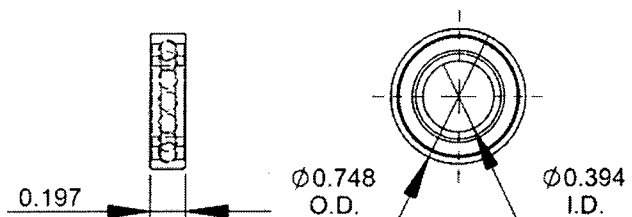


DESIGN #	DRAWN BY [Signature]	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D3183	REV. C SHEET 1 OF 4
DATE 04.02.17		TITLE BRACKET ASSEMBLY	SCALE 1:1
A	03.01.24	NEW ISSUE	
B	03.06.17	REMOVE BEARING; 1.012 WS 0.882	
C	04.02.17	ADD -045/-9; 0.182 WAS 0.431	
C1	# 04.11.09	10.830 WAS 0.850	

RELEASED
04 03 01

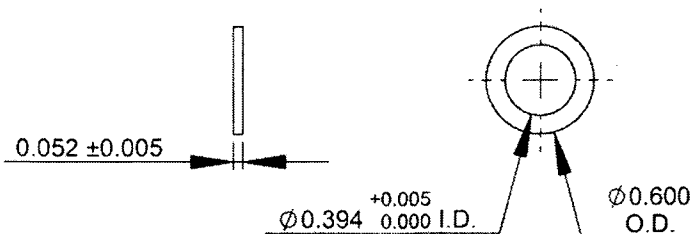


D3183-041 BRACKET ASSEMBLY (SHOWN)
D3183-042 BRACKET ASSEMBLY (OPPOSITE)
D3183-043 BRACKET ASSEMBLY (SIMILAR)
D3183-044 BRACKET ASSEMBLY (SIMILAR)



D3183-5 BEARING:
SPECIFICATION CONTROL DRAWING

- 1) SINGLE ROW, DEEP GROOVE, CONRAD TYPE, SHIELDED
- 2) POSSIBLE SUPPLIER: NSK P/N 6800ZZ
- 3) ALL DIMENSIONS ARE IN INCHES



D3183-7 WASHER

- 1) MATERIAL: AISI 303 ROUND BAR (M303R) ANNEALED
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES

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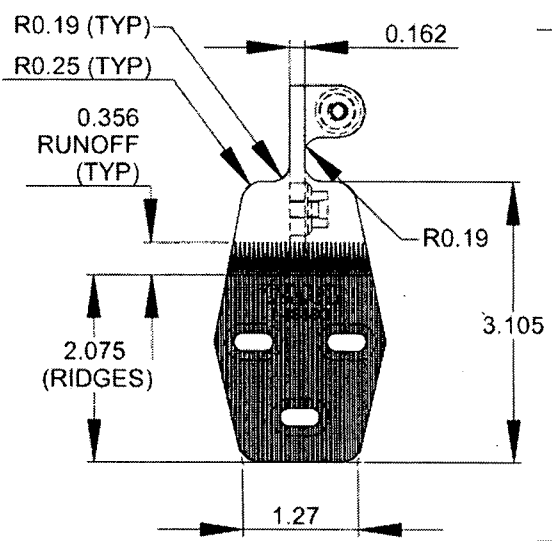
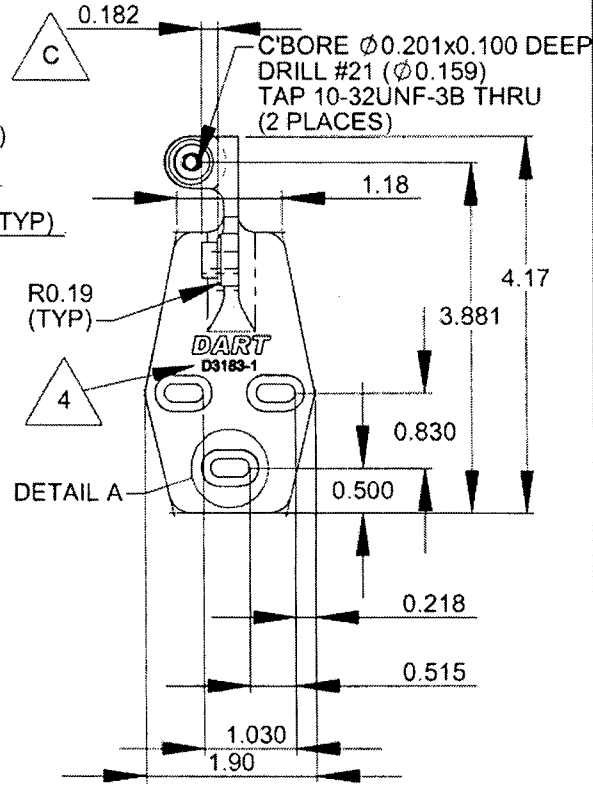
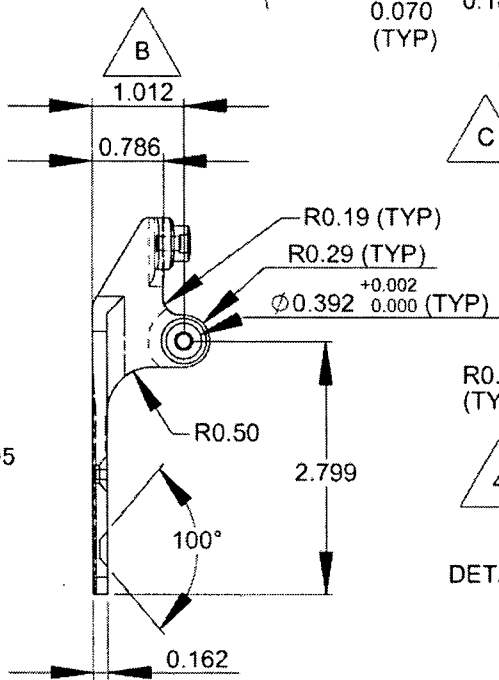
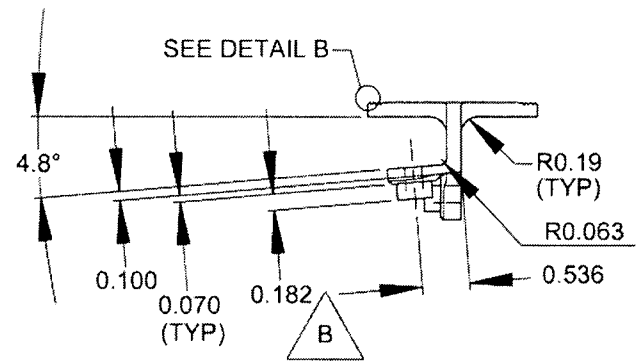
W/S 3195

DART

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DESIGN	DRAWN BY	DART AEROSPACE LTD	REV. C
HAWKESBURY, ONTARIO, CANADA			
CHECKED	APPROVED	DRAWING NO.	SHEET 2 OF 4
DATE	04.02.17	D3183	SCALE 1:2
		TITLE	
		BRACKET ASSEMBLY	

RELEASED



D3183-1 BRACKET SHOWN
D3183-2 BRACKET OPPOSITE

- 1) D3183-1 CAN BE MADE FROM D3183-3
D3183-2 CAN BE MADE FROM D3183-4
- 2) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)
MIN ULTIMATE STRENGTH = 150 ksi
MIN YIELD STRENGTH = 100 ksi
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 4) ENGRAVE DART P/N & LOGO AS SHOWN
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES

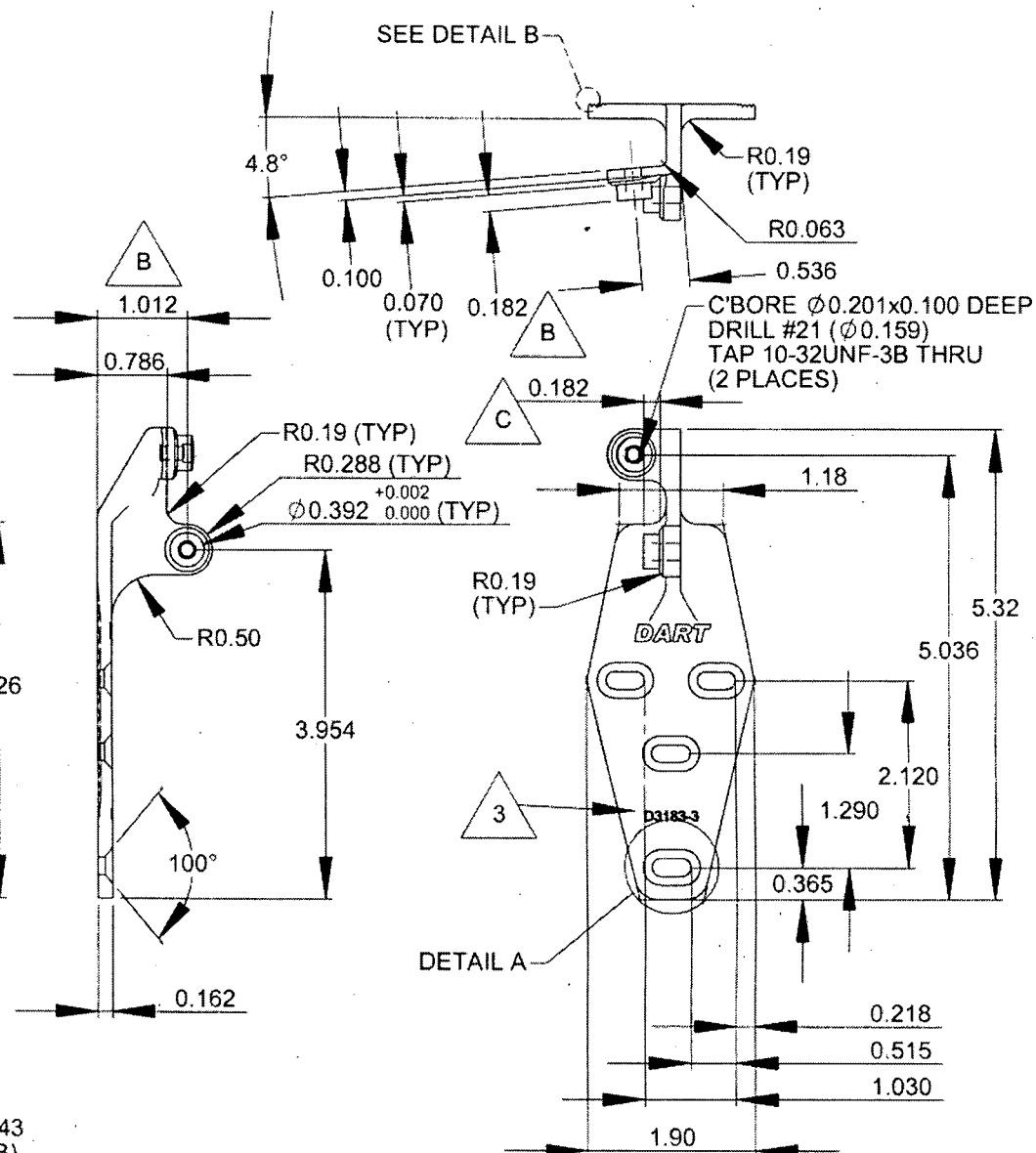
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Wb 53195



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CHECKED	APPROVED	HAWKESBURY, ONTARIO, CANADA
DATE	TITLE	REV. C
04.02.17	BRACKET ASSEMBLY	SHEET 3 OF 4
		SCALE 1:2



D3183-3 BRACKET SHOWN
(REPLACES BELL P/N 412-030-304-105)
D3183-4 BRACKET OPPOSITE
(REPLACES BELL P/N 412-030-304-106)

- 1) MATERIAL: 17-4 SS PER AMS 5604/5643
*(REF DART SPEC. M17-4-B)
MIN ULTIMATE STRENGTH = 150 ksi
MIN YIELD STRENGTH = 100 ksi
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 3) ENGRAVE DART P/N & LOGO AS SHOWN
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES

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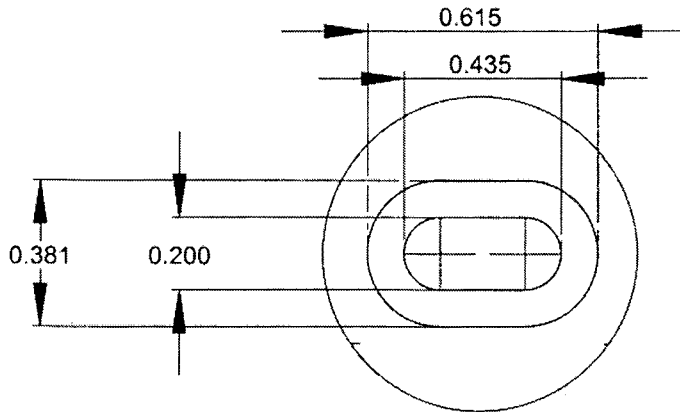
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WLO 5395

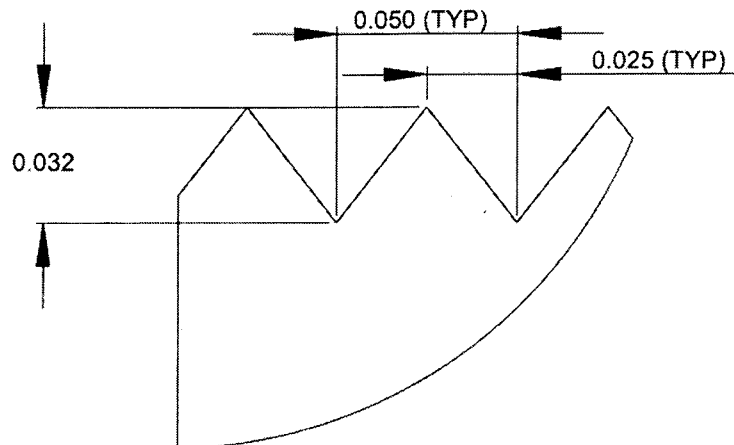


DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. D3183	REV. C SHEET 4 OF 4
DATE 04.02.17		TITLE BRACKET ASSEMBLY	SCALE 1:1

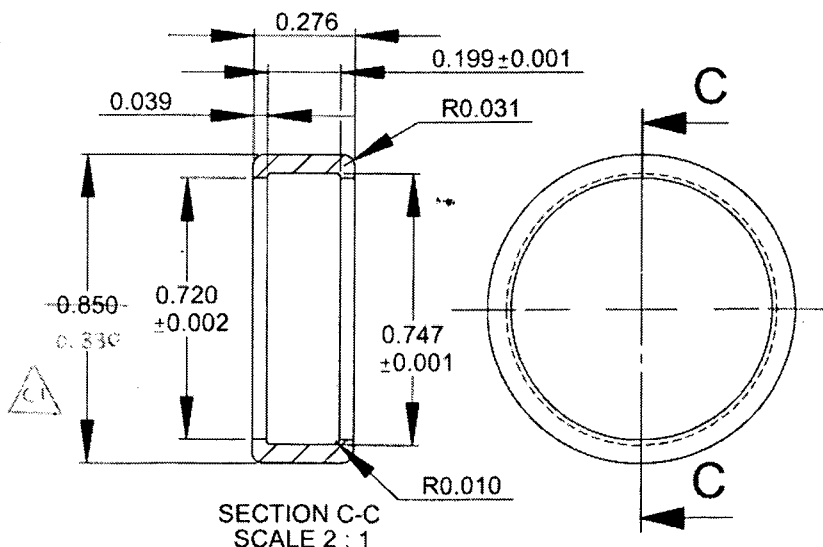


DETAIL A (2 : 1)

RELEASED
04.03.01



DETAIL B (20 : 1)



D3183-9 CAP

- 1) MATERIAL: DELRIN ROD, Ø1.00
(REF DART SPEC. M-DELRIN-R1.00)
- 2) TOLERANCES ARE PER DART QSI 018
UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES

D3183-045 BEARING ASSEMBLY

- 1) ASSEMBLE D3183-5 BEARING AND
D3183-9 CAP

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